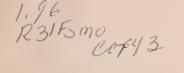
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United States
Department of
Agriculture

Soll Conservation Service

Experiment Station Bozeman,

Agriculturel

MONTANA WATER SUPPLY OUTLOOK

Stafsta

Snowpack and Streamflow Forecasts as of May 1, 1984

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SNOW SURVEY UNIT
Federal Bidg., Rm., 443
10 East Babcock
Bozeman, MT 59715

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The Montana Water Supply Outlook is a publication of the U.S. Soil Conservation Service. The SCS administers the Cooperative Snow Survey Program in cooperation with other federal, state and private agencies, organizations, and individuals.

The report is prepared by SCS, Snow Survey and Water Supply Forecast Staff, Room 443, Federal Building, 10 East Babcock, Bozeman, Montana.

COOPERATIVE SHOW SURVEYS

1. Institute the botte data
Mes-1501y for foreigning
water uppfy for hingation,
dometic and nunsippd woistuppfy, hydro eletted posit
generation, no-igation,
mining and indutty

The learnesters of Batti hages

Statewide stream – flow forecasts vary

Below average to well below average nunoff is forecast for the northwestern one—third of the state and most of the Yellowstone River drainage above the Bighorn.

Missouri River headwater streams and streams draining the front face of the Beartooth Range are expected to have average to above average streamflow during the spring and summer months. Shortages of irrigation water supplies can be expected in many areas.

Snowpack improves in some areas

Heavy snowfall near the end of April, centered around Red Lodge in south-central Montana, dropped an estimated 7 feet of snow in 5 days and improved snowpacks in this area.

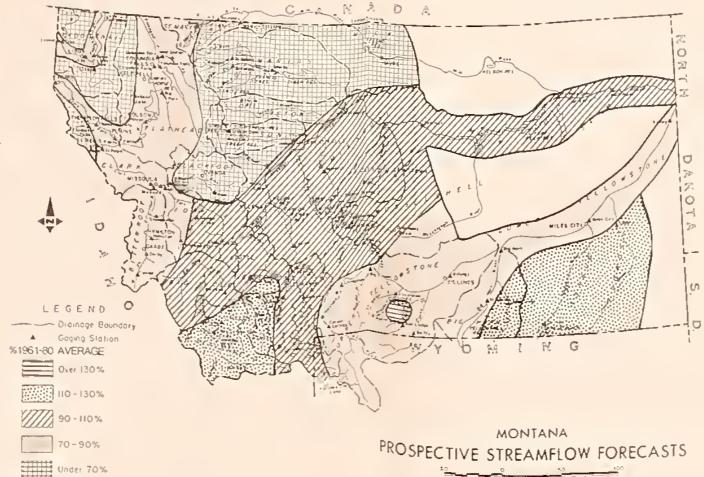
Through April, southern drainages continued to pick up snow while the northern areas ended up short again.

Snowpacks in southwest, central and south-central Montana have average or above average levels of water stored in the snowpack. All other a have below to well below average and

High elevation snowpacks continued build through April while lower elevations are generally showing melt.







Missouri River & Hudson Bay Drainages

272427902 W. C. W.		THIS YEAT	~-	1 01 01		5 • E A •		*1 CO TO
STREAMFLOW FORECASTS		I OFF CASE	I was a	2 4 41 411 7		ECAST		ACHERALT
BASIN STAFAM MAIN FORECAST POILS	*Loui Al+i E	nd Platent	4.7	1	(legion)	Picient of Accept	L+111+3+	Assessed
PE	AIGO	May	- Septembe			May	July	
	. 93.	1 115		80.7	85.0	116	130	73.5
RED ROCK RIVER near Monida (1)			1.77	120	126	127	154	99.0
BULL THE REAL PROPERTY OF THE			200	162	165	123		134
DEAUGRDEAD RIVER BE BATTALLS (2)				91.6	88.0	F17		74.9
DRIVE BIVER HEAT Alder	1	0 00		674	560	91		614
RIG ROLE RIVER near Melrone	*	STOPA	MFLOW MEAS	UNCHENTS	OISCONTIN	UED		
RAMITOR RIVER mear Boulder	*	4 117	KILLYON WEYS	17.5	18.0	118		15.3
WILLIAM CREEK mear Harrison	. 20			440	300	90	355	332
MANUSON RIVER mear Graviling (3)			711	743	590	104	665	568
MADISON RIVER mear McAllister (4)			001	514	442	102	426	433
CALLATIU RIVER dear Galeway			307	25.6	24.4	108	21.3	22.6
INPLOUMINDLE CREEK RESERVOIR near Bozeman (3)	. 21			42.0	38.8	108		35.9
HVALLTE CREEK near Bozeman (6)	, 45			541	462	102		452
GALLATIN RIVER at LORAN	, ,			2,200	1900	103	2049	1,849
MICCOUNT RIVER at Toston (7)	, 22.		No Charles	-0.0	15.7	90	11.8	17.4
energ curry mear White Sulphur Springs	, 10		1012	000	285	5.8	284	489
SIN RIVER at Gibson Dam (8)			0.20	126	105	92		114
BULT CREEK HEAR Modarch				3,440	2870	98		2,928
MINROLD RIVER at Fort Benton (9)	. 33			222	140	67		210
TWO MEDICINE CREEK near Browning (10)	. 11			120	69.0	67		103
RADGER CREEK near Browning.	د ۱				46.0	68	38.0	67.7
INFLOW SWIFT RESERVOIR near Dupayer	. 33		-11 11	79.7	64.0	65	20.0	98.0
COT BANK CREEK at Cut Bunk	, 70			104	270	60	200	449
MARIAS RIVER near Shelby	. 2		11, 10			94	200	3,418
INSSOURT RIVER at Virgelle (11)	. 31.			3,960	3210	94		3,707
MISSOURI RIVER near Landusky (11)	. 40.			4,303	3485	88		4.3
NORTH FORK MUSSELSHELL RIVER mear Helpine	. 4	.8 9		5.3	3.8			52.7
ROUTH FORK MUSSELSHELL RIVER above Martinadale	. 48	,6 86	5	56.5	45.0	85		
HISSOURI RIVER below Fort Peck Dam (11)	. 40			4,244	3520	95		3,711
MILK RIVER at Eastern Grossing	. 1			199				
HILK RIVER at Eastern Crosning (12)	. 21	.5 39)	55.4		0.0		0.700
INELOW LAKE SAKAKAWEA, ND (11)	. 96	50 89	}	10,855	8650	89		9,708
SASKATCHEWAN RIVER BASIN				121	75.0	72	81.2	104
SWILTCHRRENT CREEK at Sherburne (F1)	. 89			465	285	72	0112	394
ST. MARY'S RIVER near Unbb (13)	. 3	40 7:	3	403	200	7 %		

(1)	Adjusted	for	storage	La	Lina	
	Reservois					

- (2) Adjusted for storage in Lima and Clark Canyon Reservoirs.
 (3) Adjusted for storage in Rebgro
- Lake.
 (4) Adjusted for storage in Hebgrn
 Lake and Engls Lake.
 (5) Sum of West Fork Hyalite Creek and
 East Fork Hyalite Creek shove the
- Reservoir.
 (6) Adjusted for storage in Middle
- Creek Reservoir.
 (7) Adjusted for storage in Liza, Heb-gen, Ennis & Clark Canyon Reser-
- (8) Adjusted for storage in Gibson Reservoir & diversions. (9) Adjusted for storage in Lims, Clark Canyon, Hebgen, Ennis, Gib-son, Plahkun, Willow Creek &
- Canyon Fetry Reservoirs.
 (10) Adjusted for storage in Two Hedi-cline Reservoir S diversions in
- Two Medicine Canal.
 (II) Adjusted for all upstresm
- (12) Flow at Eostern Crossing alnum St. Mary's Canal. (13) Adjusted for storage in Lake
- ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE

Brown was a second	PEAK FLOW ISECOND	LEETI
POST CAST POINT	Peretett # mge	Assists
Big Hole River mear Melrope	6,500 - 8,000	8,020
Ruby River above Reservoir	900 - 1,200	939
Gulfatfu River mar Gateway	5,500 - 6,500	5,432
Un An River near Logun	5,500 - 7,000	5,488
Minimum River at Toston	18,000 - 22,000	18,582
Helt Creek near Bonarch	1,200 - 2,000	1,854
Marlas River near Shelby	3,000 - 5,000	13,312
S. Ck. Munselshell above Martingdale	750 - 1,000	745
*[[[gn]] abnormal marmar during the fill[[d] multing parties to	or I muse the pith to be outlide the indicated	emoge

C A DI A D A

MONTANA

MOUNTAIN SNOW WATER EQUIVALENT

should have near to above average spring and summer runoff. Streams draining in the central mountain ranges are forecast to have a little below average runoff. Well below average runoff is expected from streams originating along the Continental Divide north of Stemple Pass, west of Helena.

Some streams near average

The headwaters of the Missouri River

Irrigation water will be in short supply on all streams in the Sun, Teton, Marias and Milk River drainages where stored water is not available. Other areas should have near average supplies.

Based on snow pillow records and current conditions, the Big Hole River is expected to reach its peak snowmelt numoff in early June with a little below average peak flow. The peak inflow to Hebgen Lake on the Madison is expected near the end of May or early June at a little less than average amount. The Gallatin River is forecast to peak a little higher than average around mid-June.

These headwater streams will all combine for a near average to slightly above average peak inflow to Canyon Ferry Reservoir the first or second week in June.

	Cond N A D A
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→ - 22-	
y { ,	
LEGEND O Ordinage Boundary A Gaging Station *1961-80 AVERAGE	
0ver 130%	
90 - 110%	MISSOURI RIVER & HUDSON BAY DRAINAGES

SUMMARY OF SNOW MEASUREMENTS ICOMPARISON MEEM PREVIOUS YEARS!						
	Number of Courses	THIS TE	AR'S SHOP			
SUB-WATERSHED	Averaged	U. 011 T 044	Acest			
Beaverhead	28	100	112			
Ruby	13	110	121			
Big Hole	27	100	99			
Boulder	-11	117	106			
Jefferson	79	103	108			
Madison	33	97	001			
Gallatin	23	111	99			
Missouri Headwater	135	103	104			
West-side Missouri						
(Toston Cacade)	11	114	92			
Smith-Belt-Arrow	11	114	90			
Missouri Main-stem	22	114	91			
Teton & Sun	12	78	46			
Marias	5	98	65			
Marias-Teton-Sun	1.7	88	55			
Judith-Musselshell	1.7	156	102			
Milk	10	58	42			
Bear Paws	7	0	-0			
Missouri (Total)	191	106	98			

Bow River in

WATER SUPPLY OUTLOOK CONTON	Poor, Fell. Ith Respect to (Accepted. Jiwal Supe
	Flaw Pi+to	đ
	Spring essen	Leie Salion
Beaverhead	Exc	Avg
Ruby	Exc	AVR
Big Hole	Fair	Fair
Boulder	Fair	Fair
	Avg	Fair
Madison	Avg	Avg
Gallatin	Avg	Avg
West-Side Missouri	Avg	Avg
	Avg	Fair
Sun	Poor	Poor
	Poor	Poor
	Poor	Poor
	Fair	Fair
	Fair	Fair
Milk	Poor	Poor
Bear Paws	Fair	Fair
da	Fair	Poor

Missouri snowpack near average

The southwestern part of the Missouri drainage continues to receive good mountain snowfall. Accumulated snowpack in the headwaters area is generally average or above average.

Some slight improvement has been noted in the Sun, Marias, Teton and Dearborn headwaters but the water stored in the snowpack is still only about one-half ranges in the central part of the state continue to show near average snowpacks.

The major storm of April 24-28 that seemed to be centered in the Red Lodge area did deposit considerable snow in the Tobacco Root and Bridger Ranges and the north end of the Gallatin Range south of Bozeman. These areas received 2 to 3 feet of new snow during the storm. The area along the Continental Divide between Butte and Helena also received considerable snow during April.

Snowpacks are still accumulating at most of the higher elevations. Some melt did occur around mid-April but was replaced with new snowfall. Snowpacks in lower elevations have melted or are melting slowly.

Yellowstone River Drainage

YELLOWSTONE RIVER at Corwin Springs YELLOWSTONE RIVER near Livingston BOULDER RIVER at Big Timber		TEN !	ptember 1656	1,944	Transmi Tell Leon	Price-ris tomas May -	July	0.0.010
YELLOWSTONE RIVER at Corwin Springs	1575 1820	21 - 26	eptember		1411 1464	Australia		0 =0 =04+
YELLOWSTONE RIVER at Corwin Springs	1575 1820	81		1.944		May -	July	
YELLOWSTONE RIVER near Livingston	1820		1656	1.965				-
STILLWATER near Absarokee (1)	545 480	74 90 79	FLOW MEAS 3582 1927	2,269 385 606 60b	1280 1480 255 460 420 DISCONTJ 56.0 2930 1320 158 250 4350 300	80 80 72 92 78 NUED BY 138 82 80 115 115 81	1328 USGS 2923 1716	1,602 1,860 353 502 541 40.5 3,571 1,651 137 218 5,391 212

(1) Adjusted for storage in Hystle Lake.

(2) Adjusted for storage In Cooney Reservoir

(3) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake, Pilot Butte and Bigborn Reservoirs.

(4) Adjusted for storage in Bull Lake, Buffalo Bill, Boysen, Pilot Butte, Bighorn and Tongue River Remervoirs.

(5) Adjusted for reservoirs shown in (4) and diversions into the Lover Yellowstone Causi.

ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE

"Highli shapmal weeds during the cillicil melling ported may cause the peak to be sufelde the indicated range.

PEAK FLOW (SECONO	FEETI
Forecast Empe	A+# NI
13,000 - 16,000	18,790
16,000 - 19,000	21,140 5,332
3,700 - 4,500 5,000 - 7,000	6,644
5,500 - 7,000	7,611
35,000 - 45,000	43,365

Runoff variable in Yellowstone drainage

Red Lodge Creek, Willow Creek and other streams draining the front face of the Beartooth are expected to produce above average runoff from the heavy snows recently deposited on top of earlier season accumu-

The Yellowstone, Boulder, Stillwater and Clark's Fork Rivers are still forecast to have spring and summer runoff 10 to 20 percent less than average. Streams flowing out of the Crazy, Pryor and Bighorn Mountains should have average to a little above average runoff.

Some late season irrigation water shortages can be expected on ment streems in the area above the Bighorn River.

Current weather conditions and the amount of snowpack on snow pillows Indicate the Yellowatone River and most of its tributaring will reach their peak anosmelt runoff around mid-June at levels near to a little below average,

Major storm hits Red Lodge area

PEAK FLOWS CHANGEUM MEAN DAILT) (A., 170- for 34 Nos. on day at greaters the

Yellowstone River at Corwin Springs

Yellowstone River at Livingston

Stillwater River near Absarokee Clarks Fork River near Belfry Yellowstone River at Billings

Boulder River near Big Timber

Average based on 1961-80 period.

Between April 24-28, a major snowstorm struck the east slope of the Beartooth Range and moved eastward along the Montana-Wyoming

The butyl snow pillow at the Cole Creek SNOTEL site at 7,850 feet, west of Red Lodge, measured an increase of 8.5 inches of snow water equivalent during this storm. This equates to about a 7-foot snowfall over the 5-day period. Other SNOTEL sites also indicated the storm intensity. Silver Run pillow (6,630 feet) also near Red Lodge, measured 4.9 inches of snow water equivalent during the same period.

The area around Red Lodge seemed to be near the center of the heavy snows. Deep snow also fell along the front face of the Beartooth Range with Placer Basin (8,830 feet) near the Stillwater-Boulder Divide recording an increase of 4.1 inches of water equivalent. Bald Mountain (9,380 feet) on the north end of the and Burgess Junction (7,880 feet) reported a 5.2 inch increase.

The heavy snow did not extend back into the mountains. Beartooth Lake (9,275 feet) on the Beartooth Highway received only 1.8 inches, while Fisher Creek (9,100 feet) and White Mill (8,700 feet) near Cooke City showed inchreases of only 1.1 inches and 1.3 inches respectively.

The present snowpack is still below average in the headwaters of the Yellowstone and Boulder Rivers but near average elsewhere.

RIVER BASIN	Number of Court #1		ER'S SNO+
SUB-WATERSHED	Averaged	Latt Year	A +
Upper Yellowstoc			
ab Livingston.	18	101	80
Shields	10	139	104
Boulder &			
Stillwater	9	102	81
Rock Creek &		- 4	
Clark's Fork	17	106	95
Yellowstone (#			0.0
Bigborn River -	54	109	89
Bighorn/Wyomin .	29	108	100
Little Bighorn.	1	142	116
Bigborn (Total .	30	110	101
Tongue	2	126	103
Powder	3	155	10.5
Yellowstone (Total)	89	111	93

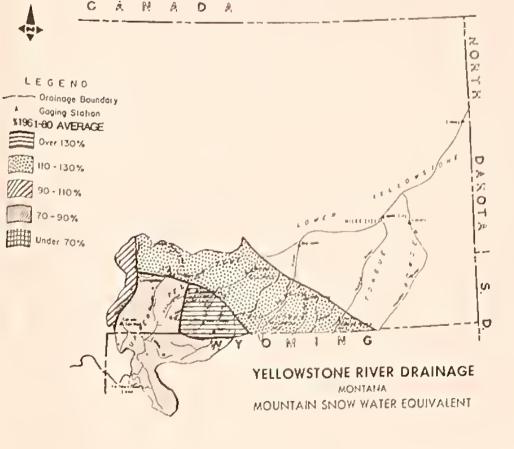
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See sen	lear and		
. Fair	Poor		
. Avg.	AVV.		
Vale	\$1 m.rs		
Avg.	Avg		
. Ave	Fai:		
. Fair	Fair		
. Fair	Pour		
. Forr	Fni:		
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WATER SUPPLY OUTLOOK Tollies with Respect to Used the part









MONTANA WATER SUPPLY OUTLOOK Page 3

Under 70%

CNOW CLIPVEY DATA

WON	н	lay 1, 1984		THIS YEAR		-	RECOTO .
	CRAINAGE BASIN MATHE SHOW CO	DURSE	Doi: 0	Sour Death	Water Content	Perer Con	care (Inches)
	HAME	()===	42,200,463	(Inche))	(lechel)	Lestyon	Acares
		8800	4/29	66	22.5	23.9	24.4
	NCE LAKE	6480	4/24	42	15.0	10.4	13.7
AMBROS		7350	4/28	56	15.4	11.7	15.7
ARCH F			4/27	0	.0		
ASHLEY	DIVIDE	4820		ŏ	.0		2.9
ASHLFY	LAKE	4000	4/27			20.2	3.0
BADGER	PASS	6900	4/28	82	29.8	29.2	44.2
BADGER	PASS PILLOW	6900	5701	SP	26.5	26.4	38.0
BALD F	AGLE PEAK	\$700	4/25	100	43.7	58.9	63.6
BALD R	TDGE	7500	5701	4.5	16.0	9.4	13.9
DANELE	LD MOUNTAIN	\$600	4/25	24	8.3	23.8	23.2
ANETE	LD MOUNTAIN PILL	OW 5600	5701	SP	9.0	20.7	17.5
DAREF		5500	4/26	67	29.3	43.7	47.2
	YAWGIM	4600	4/26	3.7	14.6	28.9	33.2
AREF		3800	4/26	0	. 0	•0	1.6
	LAKES PILLOW	8250	5701	SP	18.1	19.6	17.1
ASIH (7180	4126	4.3	12.0	11.3	9.8
	REEK PILLOW	7180	5 / 01	SP	12.2	11.0	9.6
145500		\$150	5/01	0	1.0	.5	6.9
	SPRINGS	8850	6/28	44	13.2	11.5	8.0
	SPRINGS PILLOW	8850	5 / 0.1	S.P.	13.0	9.7	8.3
		8150	4/30	71	25.4	21.5	24.2
EAR BA		5200	4/30	Ö	.0	2.6	5.4
	W SKI AREA		4/28	43	13.8	14.3	26.0
EAVER		5900	4/28	102	43.2	49.8	52.0
IG CRE		6750		54	18.4	16.4	
IR SKY		7700	4/30				18.1
	MENDON	6350	4/30	14	5.2	6.6	4.6
IG SNO		7150	4/25	70	29.2	14.9	26.4
FVCK 9	EAR	7950	5/01	9.8	40.4	48.5	44.8
LACE 0	FAR PILLOW	7950	5/01	SP	36.9	39.2	38.8
FUCK W	OUNTAIN	7750	5/01	66	25.6	17.2	17.4
LACK P	INE	7100	4/25	3.3	10.4	10.2	14.9
LACK P	INE PILLOW	7100	\$701	SP	13.3	10.8	15.6
LOODY	DICK	7600	4/26	4.5	13.0	13.4	14.1
LOODY	DICK PILLOW	7550	5701	S P	12.8	12.2	9.1
LUE LA	KE	5900	4/28	4.5	16.0	17.0	25.3
015 50		7750	5/01	5.8	14.6	10.2	10.2
	MINTALN	7950	4/25	65	23.6	21.2	22.9
	MOUNTAIN PILLO		5701	SP	24.2	24.0	23.2
DX CAN		6670	4/29	2.5	6.6	6.2	8.3
	YON PILLOW	6700	5/01	SP	4.0	4.4	6-0
	R CREEK	5100	4/30	0	. 0	1.8	3.4
RANHAN		8850	4/30	116	42.6	38.5	35.7
	-		4/30	7.5	30.4	24.0	
RIDGER		7250					32.6
	BOWL PILLOW	7250	4/30	SP	30.0	23.6	30.3
ISTOW		3900	4/25	0	. 0	0.0	1-7
	REEK TIMBER	5000	4/27	4	1.5	6.6	7.7
HL MOL		6600	5/03	1.7	5.3	3.2	3.7
BIN CE		5 2 0 0	4/26	3	. 3	- 4	2.3
LL ROA	10	8050	4/28	5.2	16.2	14.2	14.2
LVERT	CREEK	6430	4/25	2.3	7.6	10.0	10.T
LVERT	CREEK PILLOW	6430	5 / 0 1	SP	1.7	5 - 2	8.5

May 1.	1984		THIS YEAR		PASTR	
HAME	Eres	Date of Survey	Shirt District (1 Inches)	Paran Contamo (Inches)	Lace Tear	
					Catt 400	Asmigi
FOIDAY HILL	4620	4/25	20	6.7	17.8	11,
FORHIER MEADOWS	6480	4/27	3.2	7.6	5.4	6.
FROHNER MEADOWS PILLOW	6480	5/01	S.P.	9.1	8.0	7.
GARVEP CREEK	4250	4/25	0	.0	5.4	Ś.
GARVER CREEK PILLOW	4250	5/01	SP	.0	6.5	4.
GIBBONS PASS	7100	4/26	6.5	24.7	25.0	24
GOA1 MOUNTAIN	7000	4/27	10	2.4	4.4	10.
GOLD STONE	8100	4/26	5.8	17.6	18.4	19.
GPASSHOPPER	7000	4/30	13	5.1	4.0	5.
SPAVE CREEK	4300	4/25	1 4	5.3	14.1	15.
GRAVE CREEK PILLOW	4300	5 / 01	SP	3.2	11.8	8.
GRIFFIN CREEK DIVIDE	5150	5/01	9	3.5	6.1	7.
GUNSIGHT LAKE	6300	4/28	7.7	32.4	33.0	43.
HAND CREEK	5030	4/30	21	6.8	11.0	9
HAND CREEK PILLOW	5030	5/01	SP	7.0	10.2	9
HAWKINS LAKE	6450	4/25	54	20.6	34.1	35.
HAWKINS LAKE PILLOW	6450	5/01	SP	19.0	31.4	33.
REART LAKE TRAIL	4800	4/29	27	11.3	9.0	18.
HEBGEN DAM	6550	4/30	3.3	10.8	12.2	7
HELL ROARING DIVIDE	\$770	5/01	59	24.9	29.6	32
HERRIG JUNCTION	4850	4/26	3.8	14.7	25.3	22.
HOLBROOK	4530	4/24	0	. 0	0.0	2.
HODD MEADOW	6600	4/28	43	11.6	7.8	1.2
NIZAB OCCOCH	6050	4/29	9.8	42.8	45.7	54
HOODOO BASIN PILLOW	6050	5/01	SP	36.7	40.5	47
HOODOD CREEK	\$900	4/29	8 9	39.4	41.4	50.
ICEBERG LAKE #3	\$600	4/25	44	16.6	21.1	32.
INDEPENDENCE	7850	4/29	46	13.4	13.8	19.
INTERGAARD	6450	4/30	29	9.4	5.2	8.
JAHNKE LAKE TRAIL	7200	4/26	3 2	8.6	9.6	9.
JOHNSON PARK	6450	4/30	4	. 9	0.0	3.
JOSEPHINE LOWER #9	4900	4/26	2.5	7.7	10.9	17,
KEELER CREEK	3300	4/25	0	.0	0.0	1.
KINGS HILL	7500	4/26	46	15.0	9.6	16.
KIWANIS CAMP	3720	4/30	0	.0		0.
KRAFT CREEK PILLOW	4750	5/01	\$ P	1.2	- 6	7.
LAKE CREEK	6100	4/28	2.1	6.4	5.7	3.
LAKEVIEW CANYON	6930	4/26	3 4	9.6	19.4	12,
LAKEVIEW RIDGE	7400	4/26	3.1	9.2	17.3	10.
LAKEVIEW RIDGE PILLOW	7400	5/01	SP	12.8	19.9	8.
LEMHI PASS	7480	4/28	4.0	13.2	5.0	7.
LEMHI RIDGE	8100	4/28	47	15.5	8.6	10.
LEMHI RIDGE PILLOW	8100	5/01	S P	15.5	9.6	10.
LICK CREEK	6860	4/27	60	12.6	9.4	10.
LICK CREEK PILLOW	6860	5/01	S P	12.4	8.4	8.
LITTLE PARK	7400	4/30	5.5	18.6	15.8	18.
LOGAN CREEK	4300	4/27	0	.0	1.0	2.
LDNE MOUNTAIN	8880	4/30	7 2	29.0	26.1	27.
LOST HORSE	5940	4/27	7.2	29.6	26.R	34.
DST SOUL	4800	4/25	0	.0	10.7	8.
. DWER TWIN	7900	5/01	94	30.6	27.6	25.
LOWER TWIN PILLOW	7900	5 / 0 1	SP	27.7	26.2	23.
LUBRECHT FLUME	4680	5/01	0	. 0	.0	0.
TODUCCUI LEGAC	4680	5/01	U	. 0	.0	U.

SHOW Hay 1, 1984 THIS YEAR PAST RECORD ORAHRACE DADTH welf welf or Short Course NAME CAMP MISERY CAMP SENIA 7890 5701 51 12.7 8.6 10.0 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.33 4.24 4.34 4.3	
CAMP MISERY	3.9 0.3 0.1 0.8 23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CAMP MISERY 6400 4/24 127 58.0 55.2 53.7 ** LUBRECHT FOREST # 3 5450 5/01 3 1.0 .0 CAMP SCNIA 7890 5/01 51 12.7 8.6 10.0 ** LUBRECHT FOREST # 4 4650 5/01 0 .0 .0 CARROL BASIN 9000 4/30 109 39.3 42.4 43.3 ** LUBRECHT FOREST # 6 4040 5/01 0 .0 .0 CARROL BASIN PILLOW 9000 5/01 SP 33.1 38.9 33.0 ** LUBRECHT FOREST # 6 4040 5/01 0 .0 .0 CASHI CREEK PILLOW 7800 5/01 SP 11.2 10.0 9.5 ** MADISON PLATEAU 17750 5/01 58 21.8 27.2 CHOAR GROVE 17800 4/25 0 .0 0.0 0.0 7.1 ** MADISON PLATEAU PILLOW 7750 5/01 SP 19.0 26.2 CHESSMAN RESERVOIR 6200 4/27 17 3.4 2.3 2.8 ** MANY GLACIER CHICKEN CREEK 4000 4/28 23 8.0 14.7 CLOVER MEADOW 8600 4/28 74 21.0 20.8 21.0 ** MANY GLACIER PILLOW CLOVER MEADOW PILLOW 8800 5/01 SP 24.9 13.6 18.2 ** MANY MARIAS PASS COLUCTORES TO THE MADISON PLATEAU COLI CREEK 7850 5/02 99 28.4 24.4 24.2 ** MAYNARD CREEK COLI CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 ** MIDDLE MILL CREEK COMPINATION 5600 4/25 7 2.3 1.0 3.6 ** MINERAL CREEK COMMINATION 5600 4/25 7 2.3 1.0 3.6 ** MINERAL CREEK COMMINATION 5600 5/01 SP 7.7 2.6 ** MONUMENT PEAK 68850 4/29 76 24.7 25.5	3.9 0.3 0.1 0.8 23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CAMP SENIA 7890 5/01 51 12.7 8.6 10.0	0.3 0.1 0.8 23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CARROT BASIN 9000 4/30 109 39.3 42.4 43.3 *** LUBRECHT FOREST # 6 4040 \$/01 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.1 0.8 23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CARROT BASIN PILLOW 9000 5/01 SP 33.1 38.9 33.0	0.8 23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CASHF CREEK PILLOW 7800 5/01 SP 11.2 10.0 9.5 # MADISON PLATEAU 7750 5/01 58 21.8 27.2 CIDAR GROVE 3760 4/75 0 .0 0.0 7.1 # MADISON PLATEAU PILLOW 7750 5/01 SP 19.0 26.2 CHFSSMAN RFSFRVOIR 6200 4/27 17 3.4 2.3 2.8 # MANY GLACIER 4900 4/28 23 8.0 14.7 CHICPEN CREEK 4060 4/26 0 .0 1.4 3.0 # MANY GLACIER PILLOW 4900 5/01 SP .1 3.4 CLOVER MEADOW 8600 4/28 74 21.0 20.8 21.0 # MARIAS PASS 5250 4/30 18 7.6 12.0 CLOVER MEADOW PILLOW 8800 5/01 SP 24.9 13.6 18.2 # MAYNARD CREEK 6210 4/30 18 7.6 12.0 COLF CREEK 7850 5/02 99 28.4 24.4 24.2 # MAYNARD CREEK 6210 4/30 SP 13.2 11.2 COLF CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 # MIDDLE MILL CREEK 7850 4/30 85 26.0 21.0 COLLETY CREEK 6300 4/28 12 3.3 .0 4.6 # MILL CREEK 7500 4/28 34 10.8 6.3 COMBINATION 5600 5/01 SP .7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 10 3.6 8.4 COMBINATION PILLOW 8100 5/01 SP .7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 76 24.7 25.5	23.6 24.3 9.8 7.6 16.8 18.0 14.4 18.5 13.1
CHAR GROVE 3760 4/75 0 .0 0.0 7.1	24.3 9.8 7.6 16.8 18.0 14.4 18.5
CHESSMAN RESERVOIR 6200 4/27 17 3.4 2.3 2.8 # MANY GLACIER CHICKEN CRECK 4060 4/26 0 .0 1.4 3.0 # MANY GLACIER PILLOW 4900 5/01 SP .1 3.4 CLOVER MEADOW 8600 4/28 74 21.0 20.8 21.0 # MAYNARD CREEK 6210 4/30 18 7.6 12.0 CLOVER MEADOW PILLOW 8800 5/01 SP 24.9 13.6 18.2 # MAYNARD CREEK 6210 4/30 46 16.0 13.3 COLF CREEK 7850 5/02 99 28.4 24.4 24.2 # MAYNARD CREEK PILLOW 6210 4/30 SP 13.2 11.2 COLF CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 # MIDDLE MILL CREEK 7850 4/30 85 26.0 21.0 COLLEY CREEK 6300 4/28 12 3.3 .0 4.6 # MILL CREEK 7500 4/28 34 10.8 6.3 COMBINATION 5600 4/25 7 2.3 1.0 3.6 # MINERAL CREEK 6300 5/02 10 3.6 8.4 COMBINATION 5600 5/01 SP .7 .7 2.6 # MONUMENT PEAK 8850 4/29 76 24.7 25.5	9.8 7.6 16.8 18.0 14.4 18.5 13.1
CHICKEN CREEK 4060 4/26 0 .0 1.4 3.0	7.6 16.8 18.0 14.4 18.5 13.1
CLOVER MEADOW PILLOW 8800 5/01 SP 24.9 13.6 18.2 # MAYNARD CREEK 6210 4/30 46 16.0 13.3 COLF CREEK 7850 5/02 99 28.4 24.4 24.2 # MAYNARD CREEK PILLOW 6210 4/30 SP 13.2 11.2 COLF CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 # MIDDLE MILL CREEK 7850 4/30 85 26.0 21.0 COLLFY CREEK 6300 4/28 12 3.3 .0 4.6 # MILL CREEK 7500 4/28 34 10.8 6.3 COMBINATION 5600 4/25 7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 10 3.6 8.4 COMBINATION PILLOW 5600 5/01 SP .7 .7 2.6 # MONUMENT PEAK 8850 4/29 76 24.7 25.5	T6.8 18.0 14.4 18.5 13.1
COLF CREEK 7850 5/02 99 28.4 24.4 24.2 MAYNARD CREEK PILLOW 6210 4/30 SP 13.2 11.2 COLF CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 MIDDLE MILL CREEK 7850 4/30 85 26.0 21.0 COLFY CREEK 6300 4/28 12 3.3 .0 4.6 MILL CREEK 7500 4/28 34 10.8 6.3 COMMINATION 5600 4/25 7 2.3 1.0 3.6 MINERAL CREEK 4000 5/02 10 3.6 8.4 COMMINATION PILLOW 5600 5/01 SP .7 .7 2.6 MONUMENT PEAK 8850 4/29 76 24.7 25.5	14.4 18.5 13.1
COLF CREEK PILLOW 7850 5/01 SP 28.2 23.1 19.0 # MIDDLE MILL CREEK 7850 4/30 85 26.0 21.0 COLLFY CREEK 6300 4/28 12 3.3 .0 4.6 # MILL CREEK 7500 4/28 34 10.8 6.3 COMMINATION 5600 4/25 7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 10 3.6 8.4 COMMINATION PILLOW 5600 5/01 SP .7 .7 2.6 # MONUMENT PEAK 8850 4/29 76 24.7 25.5	18.5 13.1
COLLEY CREEK 6300 4/28 12 3.3 .0 4.6 # MILL CREEK 7500 4/28 34 10.8 6.3 COMMINATION 5600 4/25 7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 10 3.6 8.4 COMBINATION PILLOW 5600 5/01 SP .7 .7 2.6 # MONUMENT PEAK 8850 4/29 76 24.7 25.5	13.1
COMMINATION S600 4/25 7 2.3 1.0 3.6 # MINERAL CREEK 4000 5/02 10 3.6 8.4 COMBINATION PILLOW S600 5/01 SP .7 .7 2.6 # MONUMENT PEAK 8850 4/29 76 24.7 25.5	
COMBINATION PILLOW 5600 5/01 SP .7 .7 2.6 * MONUMENT PEAK 8850 4/29 76 24.7 25.5	16.3
FORK STATION RISO 6/26 ST 16 4 10 0 22 2 TO MONUMENT DEAK DILLOW BOSO STATE	31.2
%	29.0
COPPER BOTTOM 5200 4/29 9 2.0 .0 5.8 # MOULION RESERVOIR 6850 4/25 20 6.5 5.6	3.2
COPPER BOTTOM PILLOW 5200 5/01 SP 5.2 2.2 7.1 * MOUNT ALLEY #7 5700 4/26 87 32.9 40.1 COPPER CAMP 6950 4/29 52 19.5 21.8 32.4 * MOUNT LOCKHART 6400 4/30 4/30 4/30	47.7
COUPER CAMP PILLOW 6950 5/01 SP 21 2 25 4 35 0 # MOUNT LOCKHAPT DILLOW	23.3
COPPER CREEK 5700 4/20 16 3 6 5 0 10 0 * MIDD LAKE	24.3
COPPER LAKE CREEK 6100 4/29 37 12 2 16 8 24 2 MILLE CREEK	21-1
COPPER MOUNTAIN 7700 5/04 39 13.6 11.0 11.8 # MULE CREEK PILLOW 8350 5/01 SP 13.8 15.5	11.5
COTTONWOOD CREEK 6400 4/27 40 11 0 9.2 8.3 % NEVADA CREEK 6480 4/29 38 11.2 8.8	12.0
CONTRACT 4200 4/26 0 .0 3.6 * NEVADA CREEK PILLOW 6480 5/01 SP 8.5 12.3	13.8
6050 4/25 39 15-4 6-2 13-5 NEWTON MOUNTAIN 5600 4/25 62 24-4 41-3	38.9
DAD CREEK LAKE 8400 4/28 31 12.4 10.0	12.7
DAISY PEAK 7600 4/30 36 8.4 8.4 10.0 3 NET PERCE CREEK	10.2
DALY CREEK 5780 4/30 32 11.4 10.4 12.8 # NET PERCE PASS	4.5
DALY CRECK PILLOW 5780 5/01 SP 7-3 4.1 R. 9 NOISY PASTAL	15.9
DARKHORSE LAKE 8600 4/28 83 33.4 26.6 30.4 NOISY BASIN PILLOW 6040 5/01 SP 52 3 50 4	52.4
DARKHUNSE LAKE PILLOW 8700 5701 SP 28.6 21.5 30.3 \$ NORTH FK. ELK CREEK 6250 5702 31 11.8 7.6	10.5
34.7 24.0 * NORTH FK. ELK CREEK PILLOW 6250 5/01 SP 10.2 6.8	10.0
DEADMAN CREEK PILLOW 6450 5/01 SP 6.6 S.6 7.1 0 HORTH MEADOWN 6350 4/29 89 39.4 34.8	48.3
DESERT MOUNTAIN 5600 4/24 26 10.2 13.1 16.6 # MORTHEAST ENTRANCE 7750 5/01 55 14.7 11.5	10.7
DEVILS SLIDE 8100 4/28 92 28.8 23.4 28.0 2 NORTHEAST ENTRANCE PILLOW 7350 5/01	7.3
DISCOVERY BASIN 7050 4/25 44 13.0 8.8 10.6 * NOTCH 8500 4/28 88 20 2.5	5.3 19.6
7800 4728 41 13.4 14.0 11.7 OPHIR PARK 7150 4/30 52 19.6 14.7	18.1
7500 7610 SP 15-1 14-3 12-2 PALISADE CREEK 8250 4/25 82 28-8 31-2	33.1
DUPLIYER CREEK PILLOW 5750 5/01 50 4 PETERSON MEADOWS 7200 5/02 46 15.0 9.8	11.7
FAST BOULDER'S 9250 4/28 81 28-0A 29-0 35 0 PETERSON MEADOWS PILLOW 7200 5/02 SP 15-0 10-8	12.2
EAST FORK R.S. 5400 4/26 0 .0 .0 .0 .7 FILTER TOTAL SERVICES TO STATE OF THE SERVICES TO STATE O	30.6
ELK HORN SPRINGS 7800 4/28 28 9.0 8.4 9.1 4 DICKEROT CREEK PILLON AASO (101 CO.)	8.0
CNECK 1300 4/30 55 19-0 15-4 20-8 PIEGAN PASS #6 5500 4/26 70 26-2 36-0	10.0 41.0
THERY CREEK PILLOW 5930 5/01 SP 17.6 17.8	27.5
FAILY CREEK 5500 1/20 57 0 12-8 6-9 PIPESIONE PASS 7200 5/04 20 7-0 6-0	5.8
FISH CREEK 8000 4/26 54 13-9 15-1 13-2 PLACER BASIN F 8830 4/28 69 21.54 19.5	24.0
FISHER CREEK 9100 4/26 92 34.4 34.8 4.6 PLACER BASIN PILLOW 8830 5/01 SP 18.7 17.6	20.4
FISHER CREEK PILLOW 9100 5/01 SP 31-4 30 8 (4-7) # POORMAN (466 5) 52 21-5 30-4	32.5
5700 4/29 3 3 10 45 \$ CONTINUE ASSOCIATION	31.1
FLEEGER RIDGE 2500 5/01 SP 32-9 42-2 52-8 # PORCUPINE PILLOW 6500 5/01 SP 5 4 2-1	7.9 2.7
FOOLHEN 9200 7/29 50 9.9 9.9 POTOMAGETON PARK 7150 4/27 36 11.6 13.4	11.4
FOUR MILE 5800 4/25 56 21.9 27.9	40.0
FOURTH OF JULY 3450 4/25 0 0 0 9-1 8-1 8 RED MOUNTAIN 6000 4/30 31 10.9 20.5	19.4
FRED NURR PASS 8000 5/04 86 31.4 25.2 RED TOP 5260 4/25 47 18.2 35.3	31.9
FREIGHT CREEK 6000 4/28 30 8.5 27 29.8 & ROCK CREEK 5600 4/25 32 11.3 4.6	8.6
13.0 % 60% (MEK MEMPAN) 0100 4721 67 21.3 21.5	17.5
MONTANA WATER SUPPLY OUTLOOK Page 4 POCKER PEAK 8000 4/27 55 15.4 12.7	1 6

ORAMAGE BAS N MA # SHOW COURSE	1304		THIS YEAR			160040
	finan	Claire of Survey	Show Cop is (Inches)	Paran Cancero (Imchael)		6-0 6-0 6-0 6-1
				(-24)	£ 0(1 0 000	
ROCKER PEAK PILLOS	8000	5/01	SP	14.6	15.7	18.7
POCKY BOY	4700	4/30	0	. 0	1.6	2.3
ROCKY BOY PILLOW	4700	4/30	SP	. 0	1.7	2.6
SACAJAWEA	6550	4/30	6.4	15.8	14.8	14.8
SADDLE MOUNTAIN	7940	4/26	7.6	28.4	27.0	28.7
SADDLE MOUNTAIN PILLOW	7900	5/01	SP	27.8	24.8	28.3
SENTINEL CREEK	8300	4/27	6.8	23.6	26.6	27.0
SHOWER FALLS	8100	4/28	93	30.4	24.1	29.5
SHOWER FALLS PILLOW	8100	5/01	SP	32.6	25.7	29.2
SILVER RUN	6630	5/01	4.2	10.7	3.9	3.3
SILVER RUN PILLOW	6630	5/01	SP	6.9	3.8	0.0
SKALKAHO SUMMIT	7250	4/30	5.9	22.7	22.8	28.3
SKALKAHO SUMMIT PILLOW	7250	5/01	\$ P	21.8	22.5	27.2
SKYLARK TRAIL PILLOW	6200	5/01	S.P		27.1	37.1
LAG-A-MELT LAKE	8750	4/28	89	28.4		28.7
LIDE ROCK MOUNTAIN	7100	4/26	50	31.0	33.5	19.4
MUGGLER MINE	6960	4/30		16.9	12.0	10.3
OUTH FOR SHIELDS	8100		4.6	13.8	12.0	29.6
OUTH FORK SHIELDS PILLOW	8100	5/01	91	34.6	22.3	55.0
NIATHUR BARE GATTON	7000	5/01 4/28	SP	24.7	15.4	10.8
PUR PARK	8100		24	8.1	7.5	24.8
PUR PARK PILLOW	8100	4/26	61	22.2	17.2	
TAHL PEAC	6030	5/01	5 P	23.0	19.0	24.4
TAHL PEAK PILLOW		4/25	83	33.7	44.9	45.2
TAR LAKE E	6030	5/01	SP	30.8	39.6	37.7
TEMPLE PASS	9650	4/28	99	37.5A	41.5	50.0
TORM LAKE	6600	4/25	30	8.4	7.6	11-6
	7780	5/02	5.8	19.2	15.4	16.4
TRYKER BASIN TUART MILL	6180	4/26	6.9	28.6	36.3	38.2
	6500	4/30	19	6.8	3.3	4.8
TUART MOUNTAIN	7400	4/29	8.0	33.7	31.3	34.6
UCKER CREEK	3960	4/30	0	. 0	. 0	0.5
AYLOR ROAD	4080	4/30	0	. 0	.0	1.1
EN MILE LOWER	6600	4/30	2.7	7.4	5.6	6.3
EN MILE MIDDLE	6800	4/30	47	13.6	11.0	13.5
EN MILE JPPER	8000	4/30	60	17.6	12.8	16.4
EPEE CREEK	8000	4/28	5.4	19.0	21.2	17.8
EPEE CREEK PILLOW	8000	5701	SP	16.5	17.1	13.7
IMBERLINE CREEK	8850	5/01	7.8	20.3	18.6	19.5
RAIL CREEK	7090	4/28	3.8	12.2	4.1	7.9
RINKUS LAKE	6100	4/28	9.2	40.4	40.4	45.6
RUMAN CREEK	4060	4/27	0	.0		0.0
V MOUNTAIN	6800	4/29	5.2	20.0	16.6	20.7
WELVEMILE CREEK	5600	4/24	3 4	14.6	8.2	16.7
WELVEMILE CREEK PILLOW	5600	5/01	SP	11.0	4.7	14.5
WENTY-ONE MILE	7150	5/01	40	12.9	14.7	17.2
WIN CREEKS	3580	4/28	0	. 0	0.0	2.3
WIN LAKES	6510	4/27	95	38.8	35.0	46.5
WIN LAKES PILLOW	6400	5/01	\$ P	33.5	33.6	42.9
PPER HOLLAND LAKE	6200	4/29	74	30.8	23.8	
ALDRON	5600	4/30	9			38.0
ALDRON PILLOW	\$600	5/01		2.2	2.2	5.9
ARM SPRINGS	7800	5/04	\$ P	3.7	5.4	7.1
ARM SPRINGS PILLOW	7800	5/04	6 5 S P	22.2	19.5 21.0	25.3
						27.0

Мау Т,	1984		THIS YEAR		PAST 9	160010	24	SKOM						
IN 2404 COUTSE		Dave			War Con?	m) (mcost)	*	May 1, 1	984		DESTEAR		PAST R	
	Design	at Survey	Checker()	Peror Concent (Inches)	Let 0 000	0.000	*	to card octo me in follo Con oct		000	Sour Chair In	Ruin Carrent	Water Conta	
							नेंद		E teve ser	et Jures	(Incher)	I per pay ()	Lock Yes	Ac = 04.0
192	8000	5/01	SP	14.6	15.7	18.7	*	WYOMING						
	4700	4/30	0	. 0	1.6	2.3	*							
	4700	4/30	SP	. 0	1.7	2.6	*	SALD MOUVIAIN (W1)	9330	5701	109	34.2	24.1	29.4
	6550	4/30	6.4	15.8	14.8	14.8	4	THE POUNTAIN DISTANCE AND ASSESSMENT	9380	5/01	50	25.0	18.3	
	7940	4/26	7.6	28.4	27.0	28.7	-16-		9270	5701	sn	19.3	23.9	-
ILLOW	7900	5/01	SP	27.8	24.8	28.3	197-		1880	5705	5.2	15.3	6.1	9.9
	8300	4/27	6.8	23.6	26.6	27.0	*	ACTURE S R. C DIVINI CHES	7880	5/01	SP	19.0	12.2	-
	8100	4/28	93	30.4	24.1	29.5	*	THE PROPERTY OF THE PROPERTY O	7940	5701	50	9.2	12.0	15.4
.0 W	8100	5/01	SP	32.6	25.7	29.2	**	" " 31 ENTRANCE CHYS	6960	4/29	4	. 8	4.4	1.0
	6630	5/01	4.2	10.7	3.9	3.3	*	LAKE CAMP COAT	7780	4/29	2.0	5.7	8.7	8.1
1	6630	5/01	SP	6.9	3.8	0.0	4	LUPINE CREEK (WY)	7380	5701	5.5	7.1		9.1
	7250	4/30	5.9	22.7	22.8	28.3	*	OURRES BASTN CHYS	7500	4/30	19	5.2	6.7	7.7
ILLOW	7250	5/01	SP	21.8	22.5	27.2	*	MORTH TONSUE CUYS	8450	5 / 0 5	6.8	19.4	_	15.3
LOW	6200	5/01	SP	28.4	27.T	37.1	*	OLD FALTHFUL CUSS	7400	5/01	2.7	0.2	10.8	T1.6
	8750	4/28	89	31.0	33.5	28.7	*	MARKERS PEAK PILLOW (UV)	9400	5701	SP	20.0	21.1	-
IN	7100	4/26	50	16.9	12.0	19.4	*	SICANA CICE BILLON (PA)	8420	5/01	5.P	21.3	26.5	_
	6960	4/30	46	13.8	12.0	10.3	头	STEVAN PASS (WY)	7100	4/29	1.3	4.5	9.9	9.6
S	8100	5/01	91	34.6	22.3	29.6	*	DOUDTEE PASS (UY)	9580	5701	8.3	30.4	30.2	13.8
S PILLOW	8100	5/01	SP	24.7	15.4	22.0	*	TROUT CREEK PILLOW (WY)	8400	5 / 0 1	SP	8.9	9.9	- 1,50
TAIN	7000	4/28	24	8.1	7.5	10.8	*	THE OCEAN PLATFALL STILLOU	CW9160	5/01	S.P.	26.8		_
	8100	4/26	61	22.2	17.2	24.8	4	ANTAFKINE (MA)	7650	4/29	5.5	6.5	10.5	11.6
	8100	5/01	2 P	23.0	19.0	24.4	*	VOLVERINE PILLOW (WY)	7650	5/01	SP	6.1	0.9	
	6030	4/25	83	33.7	44.9	45.2	*	YOUNTS PERK (NY)	8350	4730	3.5	11.9A		_
	6030	5/01	SP	30.8	39.6	37.7	*		.,,,,,,		, ,	1 7		
	9650	4/28	99	37.5A	41.5	50.0	90	BRITISH COLUMBIA						
	6600	4/25	30	8.4	7.6	11.6	*							
	7780	5/02	5.8	19.2	15.4	16.4	- N	BEAVERFOOT (BC)	6200	4/27	1.4	4.2	7.1	9.3
	6180	4/26	69			38.2	*	FERNIE (BC)	3510		0		.0	2.4
	6500	4/30	19	28.6	36.3	4.8	*	FERNIF EAST (BC)	4100		1.3	3.6		
	7400	4/29		6.8	3.3		-X-	FERNIE NE (BC)	3510		0	0.04	10.6	8.4
	3960	4/30	8.0	33.7	31.3	34.6	*	FIDELITY YOUNTAIN (BC)	6130			41.4	57.2	54.2
	4080	4/30	0	.0	.0	0.5	*36	FIELD (BC)	4200		0			
	6600		0	. 0	.0	1.1	- 46	FLOE LAKE (BC)	6860			25.4		1.3
	6800	4/30	27	7.4	5.6	6.3	*	GLACIFR (9C)	4100			21.9	24.6	33.7 28.0
	8000	4/30	47	13.6	11.0	13.5	- 46 - 46	GRAY CREEK LOWER (BC)	5080			T6.0	15.6	19.8
	8000		60	17.6	12.8	16.4	- 8	GRAY CREEK UPPER (AC)	6240		_	28.6	27.5	7.7. 9
u	8000	4/28	5 4	19.0	21.2	17.8	- 46	KICKING HORSE (BC)	5410				9.9	
	8850	5701 5701	SP	16.5	17.1	13.7	-70.	KIMBERLEY LOWER VOR (BC)	4490				.0	
	7090		7.8	20.3	18.6	19.5	-X	KIMBERLEY MIDDLE VOR (HC)					9.4	
	6100	4/28	3.8	12.2	4.1	7.9	-56	KIMBERLEY UPPER VOR (BC)	7020					10.6
		4/28	9.5	40.4	40.4	45.6	-X-	MARBLE CANYON (BC)	4930				17.6	22.1
	4060	4/27	0	.0		0.0	-36-	MORRISSEY RIDGE (BC)	6100				9.1	12.8
	6800	4/29	5.2	20.0	16.6	20.7	- Y-	MOUNT ABBOT (9C)	6490				29.2	29.1
2111011	5600	4/24	3 4	14.6	8.2	16.7	- %	MOUNT ASSINIBOINE (BC)	7310				46.5	55.2
PILLOW	5600	5/01	\$ P	11.0	4.7	14.5	*	MOUNT JOFFRE (AC)	5740				19.2	24.1
	7150	5/01	40	12.9	14.7	17.2	46	MOVIE HOUNTAIN (BC)	6360				13.0	
	3580	4/28	0	. 0	0.0	2.3	*	SINCLAIR PASS (BC)	4490				16.9	17.2
	6510	4/27	9.5	38.8	35.0	46.5	-;V-	SULLIVAN MINE (BC)	5080				1.3	
	6400	5 / 0 1	\$ P	33.5	33.6	42.9	×	IHUNDER CREEK (BC)	6590				9.7	
	6200	4/29	7 4	30.8	23.8	38.0	*	UPPER ELK RIVER (OC)	4401				8.2	12.6
	5600	4/30	9	2.2	5.2	5.9	*	VERMONT CREEK (BC)	400(0.0	
	\$600	5/01	Ş.P	3.7	5.4	7.1	-94-		4.4.4	, 4//	7 ??	5.5	14.6	20.4
	7800	5/04	6.5	55.5	19.5	22.3	46	SP - Snow Pillow observation	is water	r contant	only		•	
) W	7800	5/01	SP	24.5	21.0	27.0	· X.	A - Aerial observation; water						
	57.50	1. 195	C 7	24 2	3.5 6	3 6 0	2.1	. Detter opportantion! Mult	" COHEC	114 - 04 1010	4 2 5 5 5 5 5			

5450 4/25 53 21.2 35.5 35.8 % A - Aerial observation; water content estimated.

DRAINAGE BASIN and/or SNOW COURSE	Qete Show Dr		Snow Orath	Were- Content	Weler Content (Inches)		
NAME	Elevacion	of Survey	tinchass	(Inches)	Lost Year	Acorojo	
WEST YELLOWSTONE	6700	5/01	2.3	7.5	6.5	8.3	
WEST YELLOWSTONE PILLOW	6700	5/01	SP	6.4	7.0	6.9	
WHISKEY CREEK	6800	5/01	44	16.0	20.3	19.3	
WHISKEY CREEK PILLOW	6800	5/01	\$ P	14.0	17.4	15.6	
WHITE MILL	8700	4/26	7.0	24.3	27.0	31.5	
WHITE MILL PILLOW	8700	5/0 T	\$ P	21.9	23.9	27.1	
WHITE PINE RIDGE	8850	4/28	44	11.3	6.8	6.5	
WILLOW CREEK	6500	5/02	4.7	12.6	5.2	5.4	
WOOD CREEK	5960	4/29	1.4	3.3	5.2	9.8	
WOOD CREEK PILLOW	5960	5/01	\$ P	4.9	6.1	12.7	
WRONG CREEK	\$700	4/24	1.0	2.8	6.0	11.3	
WRONG RIDGE	6800	4/25	3.5	8.9	13.4	20.9	

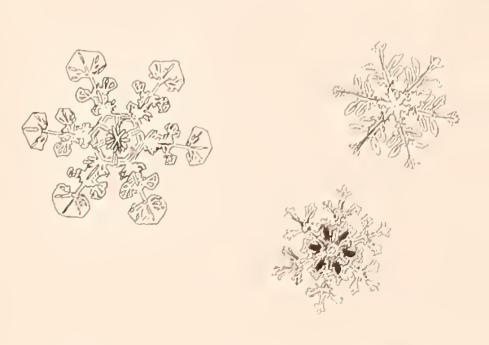
ABOVE OURKE (ID)	4100	4/30	2.5	9.8	13.4	19.9
BEAR MOUNTAIN (ID)	5400	4/25	9.3	42.6	69.4	64.2
BIG SPRINGS (ID)	6500	5/01	4.1	17.0	16.8	17.0
GOAT LAKE (10)	6500	4/27	106	37.7A	-	50.2
HUMBOLDT GULCH (ID)	4250	4/30	1.1	4.6	11.0	-
HUMBOLDT GULCH PILLOW (ID)	4250	5/01	S.P.	2.9	5.3	_
ISLAND PARK (ID)	6290	5/01	27	11.4	14.4	11.0
ISLAND PARK PILLOW (ID)	6290	5/01	SP	13.6	15.3	-
LOLO PASS (10)	5230	5/01	44	18.6	15.8	30.0
LOOKOUT (ID)	5250	4/30	5.5	23.8	30.6	33.7
MOOSE CREEK (ID)	6200	4/27	5.2	17.8	14.6	14.6
MOSQUITO RIDGE PILLOW (ID)	5200	5/01	S.P.	27.9	39.3	-
SAVAGE PASS (ID)	6170	4/30	6.0	22.6	21.7	28.5
SAWTELL MOUNTAIN (ID)	8720	5 / 0 1	106	39.5	51.7	38.5
SMITH CREEK (ID)	4800	4/30	7.6	33.9	51.0	45.7
SUNSET PILLOW (ID)	5540	4/27	SP	32.9	34_0	-
TARGHEE PASS (ID)	6980	5 / 0 1	EST	14.3	14.2	13.2
VALLEY VIEW (ID)	6630	5/01	3.2	11.3	16.3	13.7
WHITE ELEPHANT (ID)	7710	5 / 0 1	66	24.0	32.0	25.7

ALBERTA

AKAMINA (AL)	5810	5/01	4.1	14.6	18.8	-
ALLISON PASS (AL)	6490	5/01	36	13.1	15.1	-
HOW RIVER SUMMIT (AL)	6660	5/03	3.7	12.3	12.6	14.
CUTHEAD LAKE (AL)	7250	5/03	4.6	13.1	12.3	16.
HIGHWOOD SUMMIT BUSH (AL)	7250	5 / 0 1	4.8	14.1	16.2	18.
LARCH VALLEY (AL)	7740	5/03	44	16.4	16.3	19.
CJA) TIMMUZ WOELE ELTIL	7090	5701	4.3	11.3	15.5	13.
MIST CREEK (AL)	5740	5701	5	1.5	7.0	7.
MOUNT SKO(I (AL)	6740	5/03	4.3	12.8	13.3	14.
MUD LAKE (AL)	6200	\$701	2.9	9.5	13.1	14.
PTARMIGAN HUT (AL)	7150	5/03	4.1	13.6	11.6	15.
SUNSHINE VILLAGE (AL)	7300	5/03	5.7	20.0	18.0	25.
THREE ISLE LAKE (AL)	7090	5701	6.1	22.5	22.6	-



May showers bring June flowers---and sometimes more snowsturms!



Columbia River Drainage

STREAMFLOW FORECASTS	THIS Y	EAT.	PASI	*150#	7=15	TEAP	¥ 2151	*1.00.0	Test	TEAD	P15T	F1 C0+0
JIKEARIN	FOFIC		* MOUSEND	AZ 81 1185	1.001	CCAST	THOUSAND	ACPF SETT	FOR	ECAST	THOUSAND:	ACPE FEFT
BYS W STERAM MAIN FORECAST POINT	Thruland Ann I sol	Project or Augusta	L11-120	2 ***211	Tropies See Fee	Paymet of Assign	6111770	242/114	Theirms Acia Fasi	Parcent of Assessed	L10.11e	3 +4111+
PI 8100		May -	Seotemb	er		May	- July			May -	June	
KOOTENAL RIVER briow Libby Dam (1)	5,050	77			4,240	76	4,812	5,569				
FISHER RIVER Derov Libby	84.5	44	5,822	6,590 194	75.0	42	4,012	178				
FISHER RIVER DEAL PROPERTY.	208	50		418	180	46		395				
YAAK RIVER mear Troy	5,840	75	7 116	7,838	5,010	74	6,025	6,734	3,965	75	4,325	5,288
INFLOW MOULTON RESERVOIR HE BUTTE (Hillion Gallons).			7,116	1,030	200	90	182	223	178	90	148	197
WARN SPRINGS CREEK AT HEYERS DAM near Anaconda (2) .	45.0	102		44.2	36.5	103	102	35.3	110		-	
FAIRT CREEK near Southern Cross (3)	15.0	93	17.1	16.1	12.5	94	13.4	13.3				
FLINI CREEK helow Boulder Creek (4)	64.0	94	17.1	68.3	48.4	93	13.7	52.0				
INFLOW LOWER WILLOW CREEK RESERVOIR near Hall (5)	10.4	79	9.9	13.2	9.5	77	8.5	12.4				
BIDDLE FORK ROCK CREEK near Philippburg	63.6	86	9.7	74.0	56.5	85	0.5	66.3				
REVADA CREEK mear Fina	13.7	72		19.0	12.0	70		17.2				
BLACKFOOT RIVER HEAR Bonner	600	68		861	525	67		786	445	67		664
CLARK FORK RIVER above Hilltown (6)	650	92		709	555	92		601	450	92		490
LLARE FORE RIVER above Historia	1,250	79	1,227	1,590	1.080	78	998	1,387	895	78	745	1,154
WEST FORK BITTERROOT RIVER Hear Conner (7)	128	80	1,221	160	115	79	,,,	146				
AITTERROOT RIVER near Darby	400	76		524	355	75		476	305	75		408
SKALKAHO CREEK near Hamilton	46.5	88		53.0	40.0	87		45.8	., .,	, ,		
HERET FORK CREEK near Stevensville (8)	30.0	85		35.3	25.0	83		30.2				
DITTERROOT RIVER at Minuoula (9)	1,020	75		1,358	915	74		1,238	775	74		1,046
CLARE FORE RIVER below Hissouln	2,270	77		2,948	1,995	76		2,625	1,670	76		2,200
CLARE TORK RIVER ME St. Regla	3,065	79	3.077	3,880	2,720	79	2,700	3,451	2,290	79	2,064	2,896
WHRTH FORK FLATHEAD RIVER near Columbia Falls	1,240	71	2,077	1,742	1,100	70	_,,,,,	1,562	915	70	_,	1,301
BIDDLI FURE FLATHEAD RIVER near West Glacier	1,220	72	1,383	1,702	1,100	71	1,239	1,546	920	71	960	1,287
SOUTH TORK FLATHEAD RIVER near Columbia Falls (10) .	1,550	76	1,646	2,029	1,420	75	1,513	1,893	1,220	75	1,215	1,636
FLATHEAD RIVER at Columbia Falls (10)	4,150	74	4,406	5,604	3,750	73	3,970	5,117	3,170	73	3,117	4,317
SWAN RIVER most hig Fork	510	85	4,400	599	435	85	3,7	514			-,	
FLATH AD RIVER near Polnon (11)	5,030	77	5.485	6,522	4,500	76	4,892	5,956	3,780	76	3,775	5,002
CLARS: FORE RIVER HEAT Plaint (11)	7,950	73	8,834	10,821	7,130	73	7,701	9,739	5,930	73	5,855	8,127
THOMPSON RIVER HEAR Thompson Falls	141	65	0 0 24	217	120	63	.,,.,	189	0 7 - 0		3	
	74.5	66		113	67.0	64		104				
PROSPLET CREEK at Thompson Falls	8,760	73		11,935	7,830	73		10,711	6,520	73		8,930
CLARK FORE RIVER at Whitehorse Rapids (12)	0,700	13		11,733	, 1020	13		10,711	0,520	, ,		01220

- (1) Adjusted for storage in Lake Kooragusa
- (1) Adjusted for storage in Silver Lake, diversions to and numping from Georgetown Lake. (3) Adjusted for storage in Georgetown Lake.
- diversions from and pumping to Silver Lake.
 (4) Sum blint Creek at Maxville sud
- Boulder Creek at Meaville.
- (5) Sun of North Fork Lower Willow Creek near Ball and South Fork Lower Willow
- (b) Difference in observed flow Clark Fork above Hissoule and Hackfool near Bonner.
- (7) Adjusted for storage in Painted Rocks Reservoir.
 (8) Adjusted for diversion lato Sumet Highline
- (9) Difference in observed flow Clark Fork above and
- below Missouls.
 (10) Adjusted for atorage in Hungry Borse Reservoir. (11) Adjusted for storage in Hungry Borse Reservolr and Flathead Lake.
- (12) Adjusted for storage in Bungry Horse Reservoir, Flathead Lake and Noxon Rapids Reservoir.

ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE

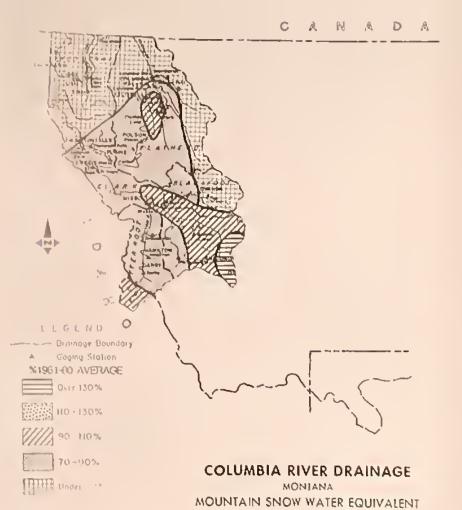
Snowpack improves in Upper Clark Fork

Snow, ice in the Upper Clark Fork improved considerably during April. ton improvement was also recorded in the Bl exicot and Bitterroot River di langes, however, little change was noted in the Flathead and Kootenni di sinages.

All incu till show below to well below wereage levels of water stored in the an speck except for the Upput Clark Fork which has some ansa with new or a little above average mospack.

Low elevations showed some melt during April with some snow courses having no snow. In the Kootenai and Flathead River headwaters, the water content measured at the snow courses is not the lowest of record but is generally the second to fifth lowest of record.





	SUMMARY OF SHOW MEASU			
1	RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS TEAT	ERCENT OF
1	MONTHUM		LIII Y 100	A16(1) +
1	Mast Kootenay/BC.	25	87	68
J	Kootenai/Hontana	31	58	57
1	lootenai above			
1	Bonners Ferry	56	67	62
1	little Bitterroot		5.3	37
1	N. Fk. Flathead	10	69	67
1	M. Fk. Flathead	11	87	65
1	S. Fk. Flathend	13	101	91
1	Svan	11	103	90
1	Flathead	54	91	79
1	Stillwater &			
1	Vhitefish	9	68	65
ŀ	Clark Fork above			
1	Blackfoot	39	118	100
1	Blackfoot	23	110	75
1	Upper Clark Fork			
1	above Missoula .	62	116	91
1	Bitterroot	21	112	88
1	Lower Clark Fork			
1	helow Missoula .	17	84	68
1	Clark Fork (Total			
1	w/o Flathead)	100	105	83
1	Pend O'Reille			
1	(Clark Fork &			
1	Flathead)	154	98	81
1	Columbia (Pend			
1	O'Reille &			
١	Kootenai)	210	90	76
L				



SHOW ENT OF		Flint Creek Upper Clark Fork Nevada Creek Blackfoot West-side Bitterroot East-side Bitterroot Bitterroot River Lower Clark Fork
68		
57		
	l	Columbia rur
62	1	coldinola rai
37	1	
67	1	expected to
65	}	onpostos to
91		
90		Runoff is expected to
79		well below average in
		except in the Upper C
65		drainage where near a
00		is forecast. Spring
00		streamflows are gener
75		to be in the 70 to 80

be low

WATER SUPPLY OUTLOOK Experited at "Poor, Fair, Alassaya, &

Little Bitterroot....

Mission Valley

Fair

Poor

Fair

Avg

Fair

Fair

Fair

Fair

Fair

Fair

Poor

Poor

Fair

Fair

Avg

Fair

Poor

Fair

Fair

Fair

Poor

be below to all drainages Clark Fork average runoff and summer fally predicted percent of average range.

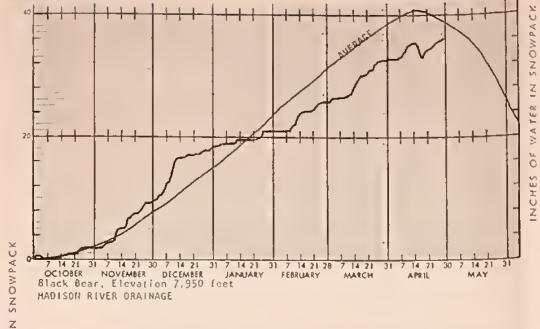
Shortages of irrigation water supplies are expected on most streams soon after the main runoff period. Irrigators not having stored water should be prepared for less than normal water supplies through most of the irrigation

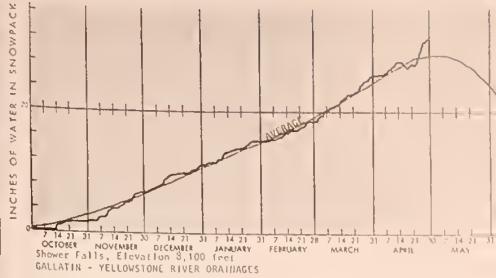
The Clark Fork River and Flathead River tributaries are expected to reach their peak snowmelt runoff in late May at lower than normal levels. The Blackfoot River could reach its peak a little earlier.

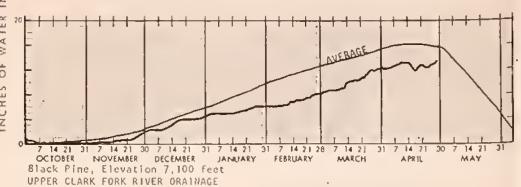
The Bitterroot River is also expected average near the end of May or in early June. All of these estimates are based on current conditions and snowpack on snow pillows and could vary depending on precipitation and temperatures during May and early

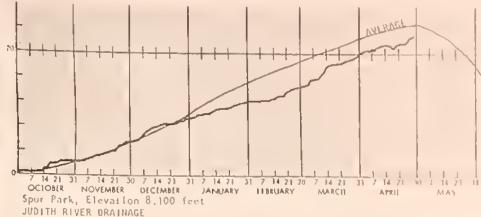
FORECAST POINT	PEAK FLOHISECOND FEETT					
PORCOST POINT	Forecast flangs	A+1+1gs				
Blackfoot River near Bonner	5,000 - 7,000	10.33				
Clark Fork River above Missoula	10,000 - 14,000	16,80				
Bitterroot River near Darby	4,000 - 6,000	6,31				
Clark Fork River below Missoula	22,000 - 28,000	32,01				
Clark Fork River at St. Regis	26,000 - 34,000	40,30				
N. Fk. Flathead near Columbia Falls	13,000 - 15,000	22.08				
M. Fk. Flathead near West Glacier	12,000 - 14,000	23.53				

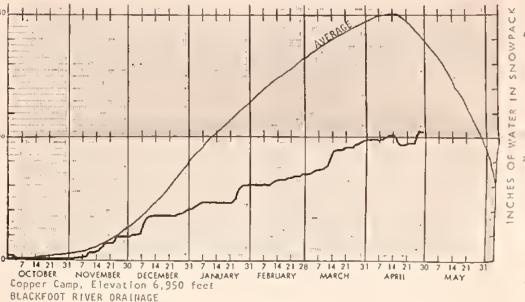
SNOW PILLOW DATA

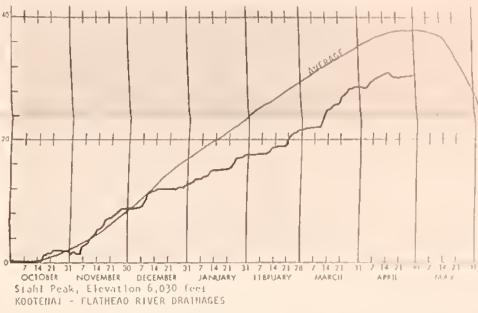


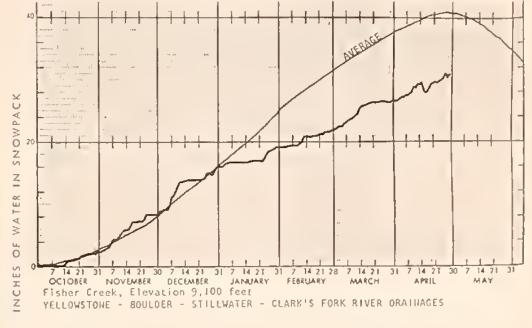




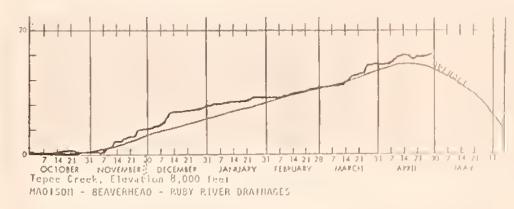


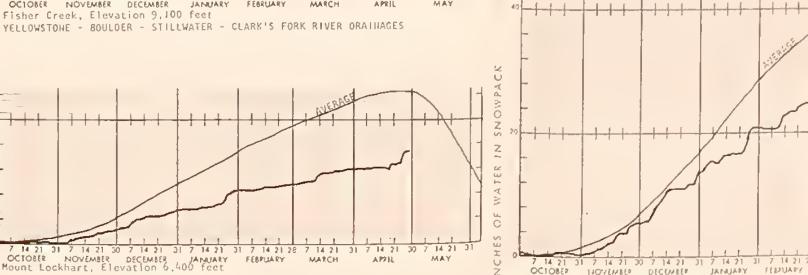


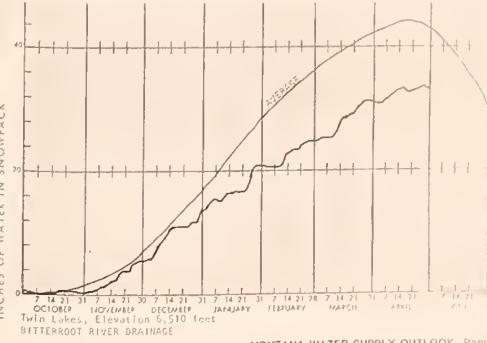




FLATHEAD - MARIAS - TETON RIVER ORALHAGES







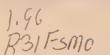


COVERNMENT AGENCIES	
Chinda	
Department of the Enviro	
Atmospheric Environmen	
Water Management Service	
British Columbia Ministr	ing Branch, Hydrology Section
Alberta Environment	ing branch, nyurorogy section
Technical Services Div	vision
Federal	
Department of the Army	- Corps of Engineers
Department of Agricultur	te - Forest Service .
	- Soil Conservation Service
Department of Commerce	- National Environmental Satellite Service
Dagageranh of Julyanian	- National Weather Service
Department of Interior	- Bureau of Indian Affairs - Fish and Wildlife Service
	- Geological Survey
	- National Park Service
	- Bureau of Reclamation
Department of Energy	- Bonneville Power Administration
STATE AGENCIES	
Montana Conservation Dist	
Montana Department of Fis	n, Wildlife and Parks ural Resources and Conservation
Montana State University	- Agricultural Experiment Station
University of Montana - S	
	, , , , , , , , , , , , , , , , , , , ,
PRIVATE ORGANIZATIONS	
The Anaconda Company	
Big Sky of Montana	
Butte Water Company	. (%)
Flathend Valley Community Montana Power Company	Correge
Pondera County Canal & Re	

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH April 30, 1984

		Historia		Dittory Zionale					
Batte or Sterm		Chartery	The See	C+++ Y+++	Average				
	COLUMB1A								
Kootenai	Koocanusa	5.748.2	2,658.0	2,220.0	1,864.0				
Flathead	Hungry Horse	3,451.0	2,221.0	2,507.0	1,982.0				
	Flathead Lake	1,791.0	789.2	950.8	932.7				
	Camas (4)	45.2	32.4	36.4	27.9				
	Mission Valley (8)	100.3	67.4	54.2	49.3				
Clark Fork	Georgetown Lake	31.0	27.8	25.2	23.7				
010111	Lower Willow Creek	4.9	5.1	3.3	2.7				
	Nevada Creek	12.6	11.1	9.9	10.2				
	Noxon Rapids	334.6	314.9	312.8	250.1				
Bitterroot	Painted Rocks	31.7			22.0				
Diccerroce	Como	34.9	24.4		18.1				
	COMO	34.3							
MISSOURI									
Reaverhead	Lima	84.0	71.5	55.2	54.7				
Debreineov	Clark Canyon	257.2	196.7	184.4	157.5				
Ruby	Ruby	38.8	40.0	36.3	35.2				
Madison	Hebgen Lake	377.5	266.2	222.3	229.7				
110012011	Ennis Lake	41.0	15.7	37.1	36.3				
Gallatin	Middle Creek	8.0	4.2	4.3	4.4				
Missouri	Canyon Ferry	2,043.0	1,584.0	1,568.0	1.499.0				
HISSOUF1	Hauser & Helena	61.9	63.0	62.5	59.3				
	Helena Valley	10.4	8.3	02.3	7.6				
	Lake Helena	10.4	10.9	10.7	9.8				
		81.9	80.5	80.5	70.8				
	Holter Lake				15,250.0				
0.111	Fort Peck Lake	18,910.0	16,140.0	15,790.0	9.1				
Smith	Smith River	10.6	11.6		9.1				
	Newlan Creek	12.4	9.7	9.0	6.2				
Musselshell	Bair	7.0	4.4	6.8					
	Martinsdale	23.1	17.5	18.8	12.1				
	Deadman's Basin	72.2	69.1	68.3	54.3				
Sun	Gibson	99.1	60.6	66.2	50.6				
	Willow Creek	32.2	27.8	24.8	23.7				
	Pishkun	32.0	29.8	30.3	26.4				
Marias	Lower Two Medicine	11.9			10.0				
	Four Horns	19.2			12.9				
	Swift	30.0	18.9	19.2	18.3				
	Lake Frances	111.9	47.9	85.6	76.9				
Milk	Elwell (Tiber)	1,347.0	699.7	714.9	569.5				
	Beaver Creek	3.5	3.2	3.1	2.6				
	Fresno	127.2	57.4	57.4	103.3				
	Nelson	66.8	43.0	44.8	43.9				
HUDSON BAY									
St. Mary's	Loke Sherburne	64.3	6.9	8.8	21.6				
	YELLOWSTON	Œ							
Stillwater	Mystic Lake	21.0	0.0	0.0	2.4				
Clark's Fork	Cooney	27.4	19.9	22.4	18.5				
Tongue	Tongue River	68.0	24.4	17.3	40.0				
Bighorn	Bighorn Lake	1,356.0	849.2	874.0	633.1				
	and an and the	1,050.0	2 - 7 - 6	27					





Conservation Service Montana Agricultural Experiment Station Bozemen.

MONTANA WATER SUPPLY OUTLOOK

Snowpack and Streamflow Forecasts as of May 15, 1984

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE SNOW SURVEY UNIT Foderal Blog., Am. 442 10 East Babcock Bozoman, NT 54714

> OFFICIAL BUSINESS PENALTY CORPORATE MAR. \$100

THIRD CLASS BULK RATE POSTAGE AND FEES PAID USDA - SCS BOZEMAN NT FERMIT NO G-267



The Montana Water Supply Outlook is a publication of the U.S. Soil Conservation Service. The SCS administers the Cooperative Snow Survey Program in cooperation with other federal, state and private agencies, organizations, and individuals.

The report is prepared by SCS, Snow Survey and Water Supply Forecast Staff. Room 443. Tederal Building, 10 East Babevek, Bozeman, Montana.

COOPERATIVE SHOW SURVEYS

National Agricultural Library Current Serial Record U.S. Oppartment of Agriculture Beltsville, MD 20705

Snowmelt increases

with warmer temperatures!

Show surveys and SMOTER reports indicate the water content in most snowpacks continued to increase almost to mid-thy. Melt would occur for a few days and then additional snowfall would increase the snowpacks. Low elevation snow in southwest Montana and near Red Lodge, left from the large atorm near the end of April, permitted for the first week or two in May.

Near mid-month, warm temperatures throughout the higher elevations of southern Montana caused large snownelt rates. In southwestern Montana, rainfull accompanied this large mosmelt and produced considerable runniff. Preliminary reports Indicate the Buby River produced peak those meanly twice as large as any previously measured above Ruby Peservoir.

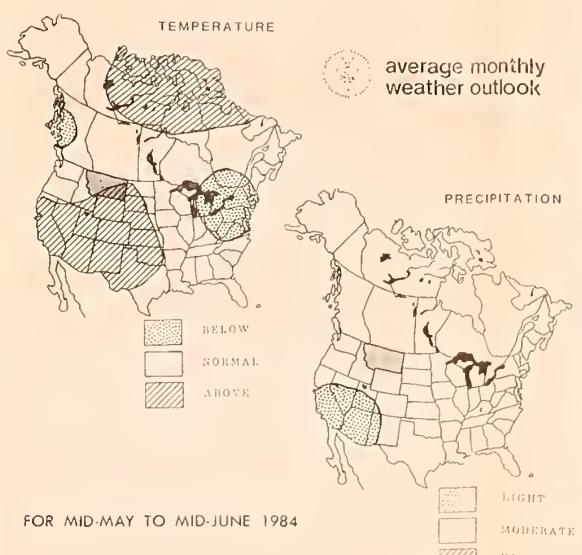
Most areas in the state received good mointure for the first half of May. The nouthern part of the state continues to have near to above average snowpacks while those resulting in the northern part are

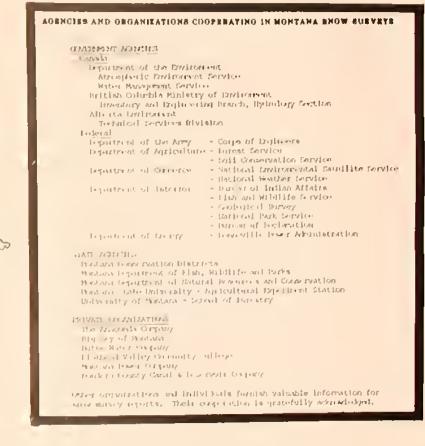
Broad on present surwanck, the peak snownelt runoff in expected to come in late may to mid-June on mont major ntreams.

In the Missouri Miver drainage, the Dig Bole River is expected to reach its snowmest peak runoff in early June. The Madison River Inflow to Hebgen Lake in expected to peak near the end of May or in early supe. The Gillatin River in utill forecast to have peak snownell runoif around mid-June. Inflow to Canyon Ferry Reservoir should peak the first or second week in June. Even though the Ruby River has had a major peak of record, it is expected that another accordary anomalt peak will occur in early June.

Pask snowell runoff in the Yellowitone River drainage should occur around mid-June on ment streams.

West of the Divide, most streams in the Clark Fork and Plathead drainages are expected to reach their seasonalt peaks in late May. The Bitterroot Edver could peak in late May or early June.





MONTANA WATER SUPPLY OUTLOOK Page 1

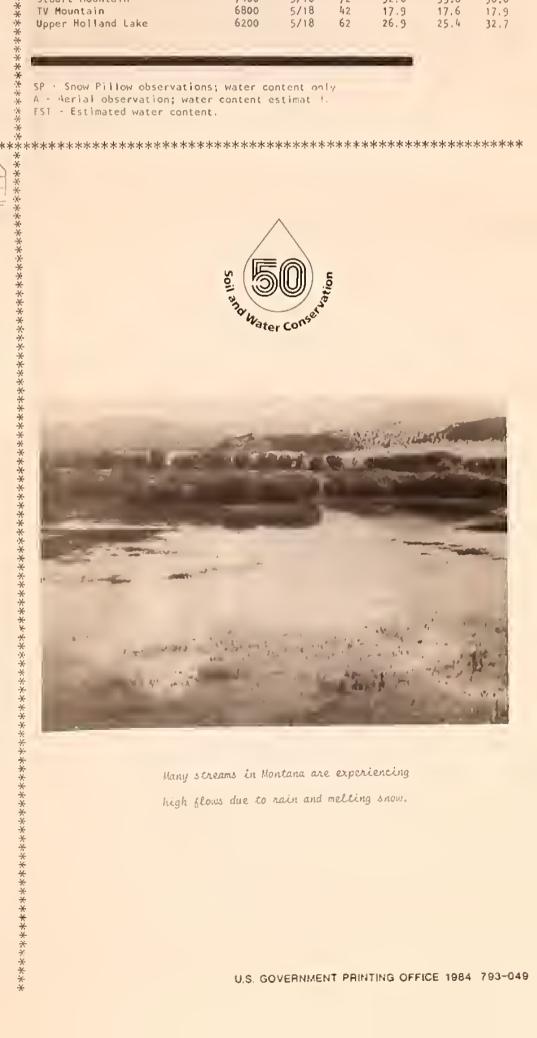
SNOW SURVEY DATA

War 10	THIS LEAR PAST ! [CCOO				0.003	
SHOW May 15, 1984					Parar Contest (Inchal)	
CRAMACE BASIN HE WISHED THINKS		Date of Survey	Shall (Noth (Inches)	Brokeri	LITTER	Aire
NAME	Elevation					
	6900	5/17	65	28.4A	32.2	43.5
BADGER PASS	6900	5/15	SP	23.4	30.B	35.3
BADGER PASS PILLOW	5600	5/14	17	6.3	20.2	15.1
BANFIELD MOUNTAIN BANFIELD MOUNTAIN PILLO		5/15	SP	7.2	17.9	12.3
	5500	5/14	65	30.2	40.5	39.9
BAREE CREEK BAREE MIDWAY	4600	5/14	3.3	14.5	24.2	22.9
	3800	5/14	0	.0	.0	0.0
	8250	5/15	SP	16.4	19.9	16.2
BARKER LAKES PILLOW BASIN CREEK PILLOW	7180	5/15	SP	11.2	12.6	8.4
BEAGLE SPRINGS PILLOW	8850	5/15	SP	10.8	9.5	7.4
BEAVER LAKE	5900	5/17	30	111,9.		23.0
BLACK BEAR PILLOW	7950	5/15	SP	36.0	39.4	35.3
BLACK PINE PILLOW	7100	5/15	SP	9.4	10.4	11.5
BLOODY DICK PILLOW	7550	5/15	SP	8.2		6.0
BLUE LAKE	5900	5/17	5.6	12.0A	18.7	21.6
801S S01S	7750	5/14	36	14.7	11.8	7.6
BOULDER MOUNTAIN PILLOW	7950	5/15	SP	23.4	23.9	19.9
BOX CANYON PILLOW	6700	5/15	SP	.0	1,9	2.1
BRIDGER BOWL	7250	5/15	6.8	30.0	29.6	29.5
BRIDGER BOWL PILLOW	7250	5/15	SP	29.5	28.3	27.2
CALVERT CREEK PILLOW	6430	5/15	SP	. 0	.0	0.1
CAMP SENIA	7890	5/14	4.5	17.6	11.6	9.7
CARROT BASIN PILLOW	9000	5/15	SP	27.8	28.9	32.9
CASHE CREEK PILLOW	7800	5/15	5 P	9.1	10.2	7.5
CLOVER MEADOW PILLOW	8800	5/15	SP	23.7	15.0	17.6
TOLE CREEK	7850	5/15	68	26.7	28.0	24.4
COLE CREEK PILLOW	7850	5/15	SP	26.1	26.8	19.0
COMBINATION PILLOW	5600	5/15	SP	.0	. 1	0.7
COPPER BOTTOM PILLOW	5200	5/15	SP	.0	1.3	1.7
COPPER CAMP PILLOW	6950	5/15	SP	19.7	24.7	30.0
COPPER MOUNTAIN	7700	5/14	2.7	8.9	11.8	9.0
CRYSTAL LAKE PILLOW	6050	5/15	SP	12.4	6.7	7.9
DALY CREEK PILLOW	5780	5/15	SP	.0	1.6	3.7
DARKHORSE LAKE PILLOW	8700	5/15	SP	28.3	23.6	30.7
DEADMAN CREEK PILLOW	6450	5/15	SP	. 5	. 6	3.2
DISCOVERY BASIN	7050	5/14	3.1	11.2	10.0	7.5
DIVIDE PILLOW	7800	5/15	SP	13.0	11.7	8.1
DUPUYER CREEK PILLOW	5750	5/15	SP	. 6		-
EAST BOULDER S	9250	5/15	90	30.0A	31.0	33.5
EMERY CREEK PILLOW	4350	5/15	SP	. 7	6.2	1.4
FISHER CREEK PILLOW	9100	5/15	SP	30.7	34.1	39.6
FLATTOP MOUNTAIN PILLOW	6300	5/15	SP	34.6	42.1	49.6
FOURTH OF JULY	3450	5/16	0	. 0	. 0	0.0
FRIDAY HILL	4620	5/16	0	. 0	8.6	4.1
FROHNER MEADOWS PILLOW	6480	5/15	SP	6.0	8.0	5.4
GARVER CREEK	4250	5/14	0	.0	. 0	0.3
GARVER CREEK PILLOW	4250	5/15	SP	. 0	. 6	2.7
GIBBONS PASS	7100	5/16	49	22.0	22.6	19.9
GRAVE CREEK	4300	5/14	0	.0	9.4	7.8
GRAVE CREEK PILLOW	4300	5/15	SP	.0	7.4	2.1
GUNSIGHT LAKE	6300	5/17	68	30.6	33.6	41.1
0.00						

*	SNOW May 15, 1984			THESTEAR		PAST *	10010
*******************	LHAINAGE BASIS HI - NOT COURS	E	Dare el Sureta	See Deep	Pacer Content (Inches)	Reter Cano	one (inches)
*	MAPE	Ereacor	el Sureta	(1%(%))	(Inche)	6,011,71.50	Asmaj
关							
*	WARM SPRINGS PILLOW	7800	5/15	SP	24.8	24 0	27 6
*	WEASEL DIVIDE	5450	5/14	52	21.2	24.9 32.8	27.5 30.8
*	WHISKEY CREEK PILLOW	6800	5/15	SP	10.4	13.6	9.7
*	WHITE MILL PILLOW	8700	5/15	SP	23.0	25.1	25.1
*	WILLOW CREEK	6500	5/15	14	5.4	.0	2.7
*	WOOD CREEK PILLOW	5960	5/15	SP	.0	5.5	7.0
.4				3,	• 0	7.7	, .0
*							
13°							
*							
*	WYOMING						
-X-							
*	BALD MOUNTAIN PILLOW (W	Y) 9380	5/15	SP	21.9		-
*	BEARTOOTH LAKE PILLOW (MA) 65 40	5/15	SP	17.9		7
*	BURGESS R. S. PILLOW (WY		5/15	SP	18.6		1
-Ŷ-	CANYON PILLOW (WY)	7940	5/15	SP	5.8		-
-X-	PARKERS PEAK PILLOW (WY		5/15	SP	21.8		-
- X -	SYLVAN LAKE PILLOW (WY)	8420	\$/15	SP	19.4		-
*	TROUT CREEK PILLOW (WY)	8400	5/15	SP	8.5		-
- X -	MOLVERINE PILLOW (MY)	7650	5/15	SP	3.5		-
*							
*							
*							
*·	COLUMN COLUMN						
*	BRITISH COLUMBIA						
**		7610					
-X-	FERNIE (8C)	3510	5,/14	0	.0		0.2
*	FERNIE EAST (BC)	4100	5/14	0	.0		3.0
Ж-	FIDELITY MOUNTAIN (BC)	3510 6130	5/14	0	.OA		0.0
-X-	FIDELITY MOUNTAIN (8C) GLACIER (8C)	4100	5/14 5/13	105	45.5		53.1
*	KICKING HORSE (BC)	5410	5/14	4 3 2 2	19.8		21.B
*	MARBLE CANYON (BC)	4990	5/13	17	8.3		9.2
- X	MORRISSEY RIDGE (BC)	6100	5/14	45	6.4		7.7 22.2
. X-	MOUNT ABBOT (BC)	6490	5/14	115	49.3		55.9
- X -	SINCLAIR PASS (BC)	4490	5/15	0	.0		22.9
*	SULLIVAN MINE (BC)	5080	5/14	3	.3		6.2
*	Speciality High Cocy	2000	2,,,	_	• 3		0.6
-X-							
*	LATE ARRIVING DATA						
-X-							
-X-	Dix Hill	6400	5/16	0	0.0	-	-
-X-	North Fork Jocko	6330	5/18	79	37.4	35.5	42.8
*	Stuart Mountain	7400	5/18	72	32.8	33.6	30.0
-X-	TV Mountain	6800	5/18	42	17.9	17.6	17.9
·*	Upper Holland Lake	6200	5/18	62	26.9	25.4	32.7
*							
*							
-X-							

GRAVE CREEK PILLOW	4300 6300	5/15 5/17	5 P 68	30.6	7.4 33.6	2.1 41.1
GUNSIGHT LAKE	0300	2/1/	00	30.0	33.0	41.1
*********	****	*****	****	*****	****	*****
CHAIR No. 16 100/						
SHOW May 15, 1984		-	THIS YEAR	,		ECORD
DRAINAGE BASIH AND OF SHOR COURSE	El	Ooto of Survey	Sho = Depth (Inches)	Moter Contons (Inches)	Lost Year	Acres
наме	Elmerton					
HAND CREEK PILLOW HAWKINS LAKE	5030 6450	5/15 5/14	SP	3. 4	6.3	3.5
HAWKINS LAKE PILLOW	6450	5/15	6 O S P	22.7	34.5 31.9	30.4
HELL ROARING DIVIDE	5770	5/16	55	23.1	27.4	24.9
H00000 BASIN	6050	5/15	92	42.0	44.9	50.1
HOODOO BASIN PILLOW	6050	5/15	S P	36.5	39.3	41.9
HOODOO CREEK	5900	5/15	8.5	38.6	41.6	46.0
INTERGAARD	6450	5/14	1.7	5.7	4.8	6.2
XINGS HILL	7500	5/15	3.5	12.0	10.6	15.2
KRAFT CREEK PILLOW	4750	5/15	\$ P	. 0	. 5	2.2
LAKEVIEW RIDGE PILLOW	7400	5/15	\$ P	5.3	17.0	4.4
LICK CREEK	8100	5/15	SP	11.9	6.1	8.2
FICK CREEK PIFFOM	0886 0886	5/14 5/15	3 2 S P	12.8 8.3	8.7 7.2	6.2
LOWER THIN PILLOW	7900	5/15	SP	26.7	27.5	22.9
LUBRECHT FLUME PILLOW	4680	5/15	SP	.0	.0	0.0
MANY GLACIER PILLOW	4900	57.15	SP	.0	.0	1.8
MAYNARD CREEK	6210	5/15	3.2	12.2	14.0	12.4
MAYNARD CREEK PILLOW	6210	5/15	SP	131		12.0
MONUMENT PEAK PILLOW	8850	5/15	SP	19.6	55.0	30.2
MOUL TON RESERVOIR	6850	5/15	0	.0	4.1	2 - 1
MOUNT LOCKHART PILLOW MULE CREEK PILLOW	6400	5/15	SP	13.5	18.7	21.5
NEVADA CREEK PILLOW	8350 6480	5/15 5/15	S P S P	15.1	17.2	17.0
NEWTON MOUNTAIN	\$600	5/16	95	5.7 25.0	37.8	10.2
NEZ PERCE CAMP PILLOW	5650	5/15	SP	8.1	6.5	26.9 5.1
NOISY BASIN PILLOW	6040	5/15	SP	55.6	50.1	40.4
NORTH FK. ELK CREEK PILLOW	6250	5/15	SP	4.6	6.4	4.8
NORTHEAST ENTRANCE PILLOW	7350	5/15	SP	. 8	3.7	1.5
PICKET PIN D PICKFOOT CREEK PILLOW	9450	5/15	93	30.5A	30.0	30.3
PIKE CREEK PILLOW	6650 5930	5/15 5/15	SP	.0	5.6	4.7
PLACER BASIN F	8830	5/15	S P 7 8	14.8 24.0A	23.5	20.9
PLACER BASTN PILLOW	8830	5/15	SP	21.2	21.6	23.9
POORMAN CREEK	5100	5/14	44	18.6	25.7	21.5
POORMAN CREEK PILLOW	5100	5/15	SP	17.3	20.3	23.3
PORCUPINE PILLOW	6500	\$/15	SP	1.6	1.9	0.4
RED MOUNTAIN	6000	5/15	3.0	10.6	15.9	15.0
RED TOP	5260	5/16	4.1	1.6.2	31.0	19.3
ROCKER PEAK PILLOW SADDLE MOUNTAIN PILLOW	7900	5/15 5/15	S P	12.7	18.4	_
SHOWER FALLS PILLOW	8100	5/15	S P	20.2	22.9	26.8
STL VER RUN	6630	5/14	S P 1 6	34.7 5.3	29.1	
SILVER RUN PILLOW	6630	5/15	SP	. 4	.0	2.2
SKALKAHO SUMMIT PILLOW	7250	5/15	5 P	19.8	23.3	0.0
SKYLARK TRAIL PILLOW	6500	5/15	SP	25.9	25.1	29.7
	8100	\$/15	SP	25.1		19.1
SPOTTED BEAR MOUNTAIN	7000	5/17	0	0.0A	4.0	9-4
SPUR PARK PILLOW STAHL PEAK	8100	5/15	SP	21.8	21.3	23.0
STARL PEAK PILLOW	6030	5/14 5/15	83	36.0	46.9	40.6
STAR LAKE E			SP	33.1	40.2	37.2
TEPEE CREEK PILLOU	96 50 8000	5/14 5/15	99	39.5A	45.5	52.0
TIMBERLINE CREEK	8850	5/15	SP	14.8	15.9	11.5
TRINKUS LAKE	6100	5/17	67 85	22.2 39.8	23.2	18.7
THELVEMILE CREEK PILLOW	5600	5/15	S P	3.4	38.6	40.0
TWIN CREEKS	3580	5/17	0	0.0A	.0	6.4
TWIN LAKES PILLOW	6400	5/15	SP	34.3	0.0 32.2	0.2





WALDRON PILLOW